

# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : ZENKEN:KK

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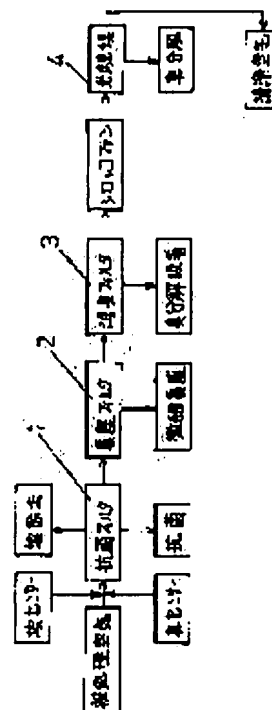
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## (54) AIR CLEANING METHOD AND AIR CLEANER

(57)Abstract:

**PROBLEM TO BE SOLVED:** To clean air especially in a room prone to contamination and improve living environments by forcedly ventilating air to be processed from an antibacterial filter side of a stacked filter formed by an antibacterial filter, a hyperfine dust collecting filter and a deodorizing filter, and further deodorizing the air by a photocatalyst.

**SOLUTION:** Air to be processed is passed through an antibacterial filter 1 formed by making natural hinokitiol to a sheet having numberless pores to separate dust, the other solid matter and germs, and deactivate mildew and germs. Subsequently, it is passed through a pleated dust collecting filter 2 having hyperfine holes to separate the whole solid matter (remove 99% or more including dioxins or the like), and then passed through a deodorizing filter 3 to adsorb alkali odor such as ammonia (odor of a toilet or the like), protein (a putrid smell, and the like, and acid gas smell such as cigarette smell or the like. Subsequently, it is passed through a photocatalyst 4 in which an ultraviolet lamp is combined with a net to which titanium oxide adheres to process NO<sub>x</sub>, SO<sub>x</sub>, the other gas smell and dioxins.



## LEGAL STATUS

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## PATENT ABSTRACTS OF JAPAN

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(71)Applicant : SHARP CORP

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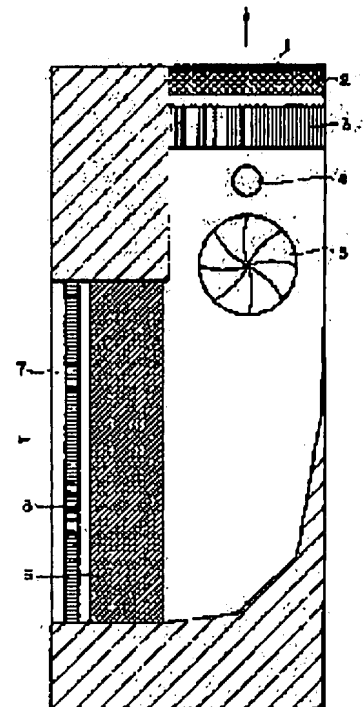
WATSUJI TORU

(54) DEODORIZING AND DUST COLLECTING FILTER AND AIR CLEANER EQUIPPED WITH SAME

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a deodorizing and dust collecting filter free from the re-diffusion of odor even when a power switch is turned off and a photocatalyst does not operate, and cause the filter to effectively and stably display a deodorizing and dust collecting function.

SOLUTION: Regarding dust and odor from an air intake 7, the odor is removed with a deodorizing net 8 carrying phthalocyanine (chelate compound of transition metal), and dirt or dust passing through the net 8 is removed with a (hepa) filter 6 having high efficiency for particle removal. Also, residual odor is removed with a photocatalyst filter 3 (honeycomb filter carrying titanium oxide and porous adsorbing material) exposed to irradiation from an ultraviolet lamp 4. In this case, an odor molecule before decomposition is further removed with a honeycomb filter 2 carrying phthalocyanine.



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